Mosaic Communications Corporation
Company Backgrounder
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Overview

The foundations of the information superhighway are in place. The Internet -- an interconnection of tens of thousands of public and private networks worldwide -- today provides more than 25 million users with access to information from around the globe. This complex of networks forms the initial pathway for the global information revolution that will eventually link businesses, public and private agencies and educational centers with one another and with consumers in their homes.

Navigating successfully through the mountains of data available on these vast networks may be the greatest challenge the information age presents. Recognizing this challenge, a team of staff and students at the University of Illinois' National Center for Supercomputing Applications in 1993 created a graphical user interface that simplified Internet navigation. Called NCSA Mosaic, the research prototype -- offered free to everyone on the network -- gained a following of an estimated 2 million users in a single year.

The success of Mosaic, widely acclaimed as the "killer application" for the Internet, has created a demand for commercial-caliber software and services for global networks. It is this growing demand that Mosaic Communications Corporation was founded to address.

Mosaic Communications' Mission

Mosaic Communications Corporation intends to be the premier provider of open software that enables people and companies to exchange information and conduct commerce over the Internet and other global networks. The company was co-founded in April 1994 by Dr. James H. Clark, founder of Silicon Graphics, Inc., a Fortune 500 computer systems company; and Marc Andreessen, creator of the NCSA Mosaic software for the Internet.

What is the Internet?

The Internet is a complex global network consisting of thousands of independent computer networks run by private businesses, government agencies and educational and research institutions. Rather than a specific kind of network, however, the Internet is actually better thought of as a set of standards or protocols that lets various types of networks intercommunicate. The protocol, called TCP/IP, enables communications between public and private networks running over any medium: phone lines, traditional network lines, fiber, and even cable television wires and wireless systems. It is also computer-independent, running across PCs, Macintoshes, workstations and mainframes.

Across the Internet, users can share information, discuss topics of interest, research various subjects, or -- increasingly -- conduct commerce. Commercial use of the Internet promises to be an area of explosive growth in the years ahead, as companies look for ways to reach the increasing number of users online and to leverage the Internet to streamline and improve their business.

To gain access, a company or organization creates a local network using off-the-shelf technology from any of a number of vendors and then pays an Internet service provider for a link from that network to the Internet. An individual at home can also link his or her computer to the Internet through an Internet service provider. Once connected, an individual can communicate with any other person on the Internet, even if that person resides halfway around the world.

According to industry estimates, as many as 25 to 30 million people are on the Internet today, with the number growing at 10 to 15 percent per month. Today, the Internet spans all developed continents and countries. While more than fifty percent of current Internet users are in companies or organizations, the number of home users is growing rapidly.

What is NCSA Mosaic?

Developed by a team of students and staff at NCSA, Mosaic is a state-of-the-art Internet-based hypermedia information system that in just over one year has taken the computer industry by

storm. Mosaic offers a window into the Internet, presenting content and services to users in a friendly, interactive, point-and-click way.

NCSA Mosaic includes both client and server components, both of which have been distributed free over the network. The server, which runs on UNIX systems, lets individuals or organizations post information on the network. The client software, which runs on Microsoft Windows, Macintosh and UNIX based systems, enables others on the net to access and browse information on the various servers. Using this software as a base, companies or organizations can build interactive information services for the Internet that are easy and enjoyable for users to access.

Because of its friendly interface to the Internet, NCSA Mosaic has been widely adopted by both technical and non-technical computer users. Today, estimates show the number of Mosaic users growing at more than 20% per month. At the same time, the number of Mosaic servers accessible on the Internet is also growing at a rate of more than 20% per month. Many of these servers are run by companies that want to offer information, goods or services to the millions of current and future Mosaic users.

Until now, this popular software for the Internet has been only a research prototype, not suitable for serious commercial applications. In order for companies and organizations to conduct business via the Internet, additional capabilities are needed. Integrated security, for example, must be provided so that business transactions can be conducted securely. The software must also enable account management and other features required for commerce.

NCSA Mosaic is also not supported by a company, making it difficult for organizations to get assistance creating or maintaining commercial servers. In addition, the software was not originally designed for use on PCs and Macintoshes with low bandwidth network connections. Consequently, performance on personal computers today can be painfully slow, especially when users access multimedia data.

Mosaic Communications Corporation is addressing these issues in its software and support offerings, presenting robust Internet-based software solutions to a broad range of customers.

The Products
Mosaic Communications' software offerings today include the Mosaic NetScape™ network navigator and Mosaic NetSite™ server line, the first commercially robust software products for

easily exchanging information and conducting commerce on the Internet. The new products bring secure communications, performance and support to companies and individuals who want to create or access information services on global networks.

The Mosaic NetScape network navigator and Mosaic NetSite servers offer easy-to-use interfaces for serving and accessing multimedia information on the net, including formatted text, graphics, audio and video. The products are fully compatible with HTTP-based clients and servers, making customers' transitions to the company's products simple.

Mosaic NetScape is a powerful commercial reimplementation of the NCSA Mosaic prototype, using the same principles of point-and-click network navigation. It is optimized to run smoothly over 14.4 kilobit/second modems as well as higher bandwidth lines, offering performance that is at least ten times that of the NCSA Mosaic prototype. Mosaic NetScape provides a common feature set and graphical user interface across computers running the Microsoft Windows, Macintosh, or X Window operating environments. It also delivers security features such as encryption and server authentication, enabling customers to take advantage of such commercial offerings as online publications, financial services, and interactive shopping.

The Mosaic NetSite server line -- aimed at corporations, publishers, information providers, service providers, and retailers -- allows users to easily set up and maintain servers for distributing information and conducting commercial operations on networks. The Mosaic NetSite line offers increased performance over NCSA Mosaic by reducing response times and making efficient use of available processor power and communications bandwidth. The line includes two products designed to meet customer requirements: the Mosaic NetSite Communications Server and the Mosaic NetSite Commerce Server.

Available for UNIX based platforms, the Mosaic NetSite Communications Server is designed for organizations that want to deliver non-secure multimedia content to various audiences, such as online marketing materials to existing and potential customers, customer support information, or communications to employees. The server can be scaled to handle heavy loads or extended to incorporate new features and functionality. It also provides intuitive, self-documenting configuration and management scripts for easy set-up.

The Mosaic NetSite Commerce Server, in addition to offering the above features, enables secure commerce to be conducted over global networks. Mosaic Communications' incorporation of RSA

Data Security technology provides encryption, which creates a secure channel to prevent anyone from tapping into the network; and authentication, which uses a digital signature to verify the legitimacy of the server. The Mosaic NetSite Commerce Server is designed for online transactions and electronic data exchange, enabling users to feel secure sending sensitive documents over networks.

The Team

Jim Clark and Marc Andreessen developed the idea for Mosaic Communications Corporation in early 1994. They founded the company in April, and have since built a team of 25 employees -- more than half of whom are engineers. The company, which is privately held, is based in Mountain View, California -- in the heart of Silicon Valley.

Jim Clark is chairman and chief executive officer of Mosaic Communications Corporation. Prior to founding the company, Clark was chairman of Silicon Graphics, Inc., a computer systems company he founded in 1982 that now has annual revenues of $1.5 billion and is among the Fortune 500's fastest growing companies. Prior to founding Silicon Graphics, Clark was an associate professor at Stanford University, where he and a team of graduate students developed the initial technology on which Silicon Graphics was built.

Clark resigned as chairman of Silicon Graphics in February 1994 to undertake a new venture with the young programming team that created the widely-used Mosaic graphical user interface. Clark holds a Ph.D. in Computer Science from the University of Utah.

Marc Andreessen is vice president of technology for Mosaic Communications. Andreessen developed the idea for the Mosaic graphical user interface in the fall of 1992 while he was an undergraduate student at the University of Illinois and a staff member at the university's National Center for Supercomputing Applications in Champaign, Illinois. He created the friendly, easy-to-use navigational tool for the Internet with a team of students and staff at NCSA in early 1993.

In his role at Mosaic Communications, Marc sets and oversees the technical direction of the company. He received a Bachelor of Science degree in Computer Science from the University of Illinois in 1993.

In addition to Andreessen, **Mosaic Communications' core technical team** includes five of the six other original Mosaic developers from NCSA: Eric Bina, Rob McCool, Jon Mittelhauser, Aleks Totic and Chris Houck. The team also includes Lou Montulli, author of Lynx, a text-based browser for the Internet, and several top-notch software engineers formerly with Silicon Graphics and General Magic Corporation.

The company's executive team includes:

- John Kohler, vice president and general manager, customer solutions. Prior to joining Mosaic Communications, Kohler served as vice president of customer support and OEM business at Silicon Graphics. Previously, he held executive positions in product division general management and international operations at Unisys, Convergent and Hewlett-Packard.

- Garth Neil, vice president of business development. Before joining Mosaic Communications, Neil created and led a multimedia information network start-up company called In4m, Inc. He also held a variety of business development, marketing and sales positions with MIPS Computer Systems and Sun Microsystems.

- Paul Koontz, vice president of marketing. Koontz worked for more than six years in various product marketing functions at Silicon Graphics, including director of marketing for the company's advanced graphics systems and, most recently, director of marketing for Silicon Graphics' high-end server division.

- Jim Sha, vice president and general manager, integrated applications. Prior to joining Mosaic Communications, he spent more than four years as vice president of Oracle's UNIX product divisions. Before that, he was vice president and general manager of the Advanced Systems Division of Wyse Technology.

The Future of Interactive Media

The Internet is beginning a fundamental transition into the broadband, commercial information superhighway of the future. Today, the Internet offers immediate opportunities for commercial applications by connecting millions of PC, Macintosh and workstation users with businesses and organizations around the world. Tomorrow, as network capabilities and performance increase, this global link will deliver interactive services, information and entertainment into consumers' homes. Mosaic Communications Corporation intends to support companies and consumers throughout this transition, and to accelerate the coming of this new era with tools that ease and advance online communications.

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